

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference MDSWO041310P	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/JP2005/003208	International filing date (<i>day/month/year</i>) 25.02.2005	Priority date (<i>day/month/year</i>) 27.02.2004
International Patent Classification (IPC) or national classification and IPC G11B11/105 (2006.01) , G11B5/02 (2006.01) , G11B5/725 (2006.01)		
Applicant MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* _____ received by this Authority on _____
- nos.* _____ received by this Authority on _____
- ☐ the drawings:
- sheets _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application
- ☒ claims Nos. 5, 6, 10, 21, 32-39

because:

- ☐ the said international application, or the said claims Nos. _____
relate to the following subject matter which does not require an international preliminary examination (*specify*):

- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

- ☒ the claims, or said claims Nos. 5, 6, 10, 21, 32-39 See Box VIII are so inadequately supported
by the description that no meaningful opinion could be formed.

- ☒ no international search report has been established for said claims Nos. 5, 6, 10, 21, 32-39

- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

- | | |
|----------------------------|--|
| the written form | <input type="checkbox"/> has not been furnished |
| | <input type="checkbox"/> does not comply with the standard |
| the computer readable form | <input type="checkbox"/> has not been furnished |
| | <input type="checkbox"/> does not comply with the standard |

- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

- ☐ See Supplemental Box for further details.

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>12, 13, 27-31</u>	YES
		Claims <u>1-4, 7-9, 11, 14-20, 22-26, 40-45</u>	NO
	Inventive step (IS)	Claims _____	YES
		Claims <u>1-4, 7-9, 11-20, 22-31, 40-45</u>	NO
	Industrial applicability (IA)	Claims <u>1-4, 7-9, 11-20, 22-31, 40-45</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
	<p>Document 1: JP 2001-250271 A (Tosoh Corporation), 14 September 2001</p> <p>Document 2: JP 2-185747 A (Dainippon Ink & Chemicals, Incorporated), 20 July 1990</p> <p>Document 3: JP 6-290496 A (Canon Inc.), 18 October 1994 & US 6399174 B & US 6403148 B & EP 1020854 A2 & EP 1426944 A2</p> <p>The inventions set forth in claims 1 to 4, 7 to 9, 11, 14 to 20, 22 to 26 and 40 to 45 lack novelty and do not involve an inventive step in the light of document 1 (paragraphs 0038 to 0042; fig. 1). The aforementioned parts of document 1 set forth a magneto-optic recording medium comprising, on a substrate, a reflective layer (12) made from aluminum alloy or the like, a magneto-optic recording layer (13) having perpendicular magnetic anisotropy, a dielectric layer (14) comprising a dielectric such as AlN, SiN or Ta₂O₅, a lubricating base material layer (15) made from diamond-like carbon, and a lubricating layer (16) containing perfluoropolyether. Here, it is obvious that the layer formed from diamond-like carbon may serve as a protective layer or a lubricating layer, as disclosed in the description of</p>		

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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this application.

The invention set forth in claims 12 and 13 does not involve an inventive step in the light of documents 1 and 2. Document 2 (page 1, lower right column, line 5 to page 2, upper left column, line 3) indicates that Teflon has been used in the past as a protective layer for magneto-optic recording media due to its heat-resistance and weather-resistance. It would therefore be obvious to a person skilled in the art to employ the Teflon set forth in document 2 as a material for the protective layer of the magneto-optic recording medium set forth in document 1.

The invention set forth in claims 27 to 31 does not involve an inventive step in the light of documents 1 and 3. Document 3 sets forth a magneto-optic recording layer wherein a recording film has a structure constituted by laminating a recording layer, an intermediate layer and a playback layer, and during playback, recording domains formed in the aforementioned recording layer are transferred to the playback layer, and recording information is reproduced by the movement of magnetic domain walls. It would therefore be obvious to a person skilled in the art to employ the structure of the recording film set forth in document 3 in the magneto-optic recording medium set forth in document 1. With regard to claim 31, constituting a magnetic layer so as to have a laminated structure for each material would be a known technique to a person skilled in the art.

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The inventions set forth in claims 5, 10 and 21 are not fully supported by the description.

According to claim 6, it is understood that a plurality of protective layers may contain a protective layer having a predetermined thermal conductivity or greater, but this is not supported by the description.

In the light of claim 32 and the part of the description referring to claim 32, it is impossible to identify the exact nature of the pit-shaped pattern formed on the substrate, and the reason why stable recording and playback of information can be carried out due to the provision of said pit-shaped pattern, therefore the invention set forth in claim 32 is not fully supported by the description.

Moreover, claims 33 to 39 refer back to claim 32, therefore it is impossible to clearly identify the invention set forth in claims 33 to 39.